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III. *The Natural History and Description of the Phœnicopterus or Flamingo ; with two Views of the Head, and three of the Tongue, of that beautiful and uncommon Bird. By James Douglass, M. D. Reg. Soc. S.*

N O M E N.

IT was the famous Comical Poet *Aristophanes*, that first makes mention of this Bird by the Name of Φοινικόπτερος (a), and not long after it is called ὄρνις Φοινίς (b) by *Philostratus* in his Life of *Apollonius Tyaneus*. *Apicius*, *Plinius*, *Suetonius*, *Juvenal*, and other Latin Writers, retain the Greek Word, and call it *Phœnicopterus*. *Bellonius* (c) says, that in French it is named *le Flement* or *Flambant*. *Scaliger* affirms, that in *Provence* they call it *Flammant* : And (d) *Gesner* says it may be called *Avis Rubra* per excellentiam (e) *Aldrovandus* writes, that in *Sardinia* it goes by the Name of *Fiamingo* ; and *de Laet* tells us, the *Spaniards* in the *West Indies* call it *Flamenco*. *Dr. Charlton* and *Dr. Grew* convert the Greek Appellation into English, naming it the *Phœnicopter* : And *Sir Hans Sloane*, in his Catalogue of *Jamaica Birds* annexed to *Mr. Ray's Synopsis Avium*, styles it the *Flamingo*. (f) *Du Tertre* calls it *le Flamand*, which differs but little from the Name given it by *Bellonius* : And

(a) *Aristoph. Aves. Sc. 4.* (b) *Philost. Lib. 8. Pag. 387. Edit. Paris. 1605. fol.* (c) *Bellon. Histoire des Oyseaux, Lib. 8. Cap. 8.* (d) *Gesner Hist. Anim. Lib. 3.* (e) *Aldrov. Ornithol. Tom. III. Lib. 20. Cap. 4.* (f) *Hist. des Isles, &c. p. 300.*

to mention no more. (g) *Du Hamel* says 'tis commonly call'd *Becharu* in *France*.

Etymologia.

All these differing Names may be easily accounted for, from the Colour most prædominant in its Wings. Thus *Martial* (Epigram 58. Lib. III.) says of this Bird:

Nomenque debet quæ rubentibus pennis.

And again (Epigr. 71. Lib. XIII.) he makes it give the true Derivation of its own Name;

Dat mihi penna rubens nomen.

The Greek Name is compounded of two, viz. φοινίκη, *puniceus*, *ruber*, and πτερόν, *Ala*, a Wing, *quod sit rubentibus Alis*; which thing in different Words is express'd as follows, by the several Authors I have consult-ed. *Bellonius* says 'tis called in French *Flambant*, not only from the Date-Colour of its Wings, à *Dactylorum colore*, i. e. a Scarlet or light red, like the Fruit of the Palm or Date-Tree called in Greek φοινίξ; but also from the Lustre of the Colour resembling Flame: or as *Aldrovandus* has it, *quod velut ignis instar ejus rubedo emicet*. The Words of *Gesner* are, *Ego Gallicum nomen à rubro & flammeo rostri, crurum, pennarumque in aliquibus partibus colore inditum esse conjecerim: aut forte quoniam ex Flandria hyeme ad Narbonensis Provincia maritima volat; nam Flandrum Galli Flammant appellant: vel à corporis proceritate, quales solent esse Flandri*. *Mr. Willoughby* (h) says the French name it thus rather from the flammeous Colour of the Wings and Feet, than that it comes in the Winter Time

(g) *Hist. de l'Acad. Royale*, p. 213. (h) *Ornithologia*, Lib. III. S. 8. 2. Cap. 1.

from *Flanders*. For he believes there was scarce ever seen in *Flanders* a Bird of that kind ; so far are they from being common there, and flying from thence into other Countries. (k) Dr. *Grew* believes it named in Greek from the Scarlet Colour of its Wings ; and *Flamment* in French for the same Reason. *Du Hamel* explains its Name *Becharu* by *Aratri-rostrum*, (*quasi Bec-Charrue*) *quoniam rostrum ejus aratri instar inflectitur*.

Genus.

All Authors, from *Aristophanes* down to *Aldrovandus*, have accounted the *Phænicopterus* a Bird of the *Palmipede* or web-footed kind ; and tho' this last named Author will not allow it to be so, yet he is forced to own that it is not a true *Fissipede* or digitated Fowl ; nam & membræ digitos sepientis quoddam habet rudimentum, are his own Words. Dr. *Charlton* only, among all the later Natural Historians, has approved of his Division, and accordingly ranked the *Phænicopter* in the Class of *Aquatick Fissipedes*. But that it is a Water-Fowl all agree ; *Aristophanes* calls it λιμνωῖς, i. e. *palustris* ; and *Aldrovandus* says of it, *Avis est aquas amans* : not to mention others.

Differentiæ.

I find Authors are silent as to the different Sorts of this Bird, only *Aldrovandus* gives us two Figures thereof that are not alike.

Locus Natalis.

This Bird is found in three of the Principal Parts of the World, that is, in *Africa*, *America* and *Europe*. *Heliadorus* (*Æthiop. Lib. 6.*) calls it Νειλῶν φοινικόπτερος, a Bird of the Nile ; and the old *Scholiast* upon *Juvenal* (*Sat. xi. ver. 139.*) affirms, that *abundans est in Africa* ; and *Du Hamel's* Words are, *Inter animantes*

(k) *Museum Reg. Soc.* p. 67.

que sua mole commendantur, Avis illa ex Ægypto allata est, quam Veteres ob plumas in Alis rubeas Phœnicopterum dixerunt. John de Laet writes, that there is an Abundance of them in the Island of *Cuba*, as also at the Isle called *Rocca*, lying on the Coast of the Province of *Venezuela* in *South America*; and *Rochfort* says the same thing of the Island of *St. Domingo*.

(l) *Dampier* saw some few of them at *Sal*, one of the *Cape Verde* Islands: He hath likewise seen some of them at *Rio la Hacha*; also at an Island near the Main of *America* right against *Querisao*, call'd by the Privateers *Flamingo-Key*, from the Multitude of these Fowls that breed there; and he never saw of their Nests and Young but there only.

Tho' these winged Creatures live for the most part in those hot Countries, yet they sometimes visit us here in *Europe*, and so may be accounted amongst the Migratory Kind, or Birds of Passage, which is confirmed by the Testimonies of several Authors: For,

Bellonius told us long ago, *migrant ultra mare*, and are often taken in *Italy*, and oftner in *Spain*.

(m) *Gassendus* says they are frequently caught in the fenny Grounds and Marshes about *Arles* in *Provence*, upon the *Rhone*.

Gesnerus, *Quidam mihi retulit avem hanc non procul à Monte-Pessulano capi.* He says in another Place, that they swim in Flocks not far from the Shore in *Mediterraneo Mari Gallico*.

Willoughby writes, that in hard Weather in the Winter Time, it comes over to the Coast of *Provence* (and is often taken about *Martiquez*, a Sea-Port Town in that Country) and in *Languedoc*, and is frequently found about *Montpelier*: But whence it comes and where it is bred,

(l) *Damp.* *New Voyage round the World*, p. 67. - (m) *Gass.* *Vita Peiresc.* Lib. II. in fine.

to me, says he, is unknown. *N.B.* This Passage is not in the Latin Edition of his Works, but added to the English which was published two Years after the first. However, he says positively, that they don't come from *Flanders*, where they are so far from being common, as some alledge, that there never was one seen in that Country.

(n) Dr. *Charleton* informs his Reader that he was presented with the Skin of one of these Birds, well stuffed and dried, by a Gentleman at his Return from the University of *Montpelier*, near which Place it had been taken. *Hujus exuvias ritè conditas insertasque mihi dono dedit prænobilis Juvenis D. Thomas Crew Eq. Aurat.*

(o) Dr. *Lister* says, *Frequens est Phœnicopterus in paludibus maritimis ad mare Mediterraneum Provincia & Languedocia.*

Whether this Bird were known to *Aristotle* is a Question: for all our Writers of Natural History agree, that the *Phœnicopterus* is no where mentioned by Name by the Philosopher; yet they can hardly believe that he was ignorant of a Bird so clearly described by his Contemporary *Aristophanes*. *Mirum est*, says *Gesner*, *hujus tam pulchræ & eximie Avis nomen ab Aristotele taceri, cum Aristophanes, qui vixit eadem ætate, meminere. Sed Græcis etiam raram esse hanc avem puto.*

Bellonius thinks that *Aristotle* described this Bird under the Name of *Glottis* or *Lingulaca*, as *Theodorus Gaza* translates it. *Aldrovandus* is of the same Opinion, but *Gesner* and *Scaliger* are not; for the first says, *Ego verò iis quas Gallinulas aquaticas nostri vocant avibus Glottidem adnumero, quæ omnes fissipedes sunt*: And the latter in his Commentary upon this Passage says, *Glottis autem quæ sit nondum mihi constat. Ridiculum quod quidam de Phœnicoptero ausus est pronuntiare.*

(n) *Charlton de Differentiis & Num. Animalium. in Apicium Galium, Lib. VI. cap. 7.* (o) *Lister Annot.*

Victus Ratio, Nidificatio, Volatus, &c.

Gesner says, *circa lacus & paludes victitat*, and that it feeds on Perwinkles and Fish: And by *Dampier's* Account we learn, that they delight to keep together in Flocks, and feed in Mud and Ponds, or in such Places where there is not much Water; that they are very shy, and therefore it is hard to shoot them; that they build their Nests in shallow Ponds, where there is much Mud, which they scrape together, making little Hillocks, like small Islands, appearing out of the Water, a Foot and an half from the Bottom: They make the Foundation of these Hillocks broad, bringing them up tapering to the Top, where they leave a small hollow Pit to lay their Eggs in. And when they either lay their Eggs or hatch them, they stand all the while, not on the Hillock, but over it, with their Legs on the Ground in the Water, resting themselves against the Hillock, and covering the hollow Nest upon it with their Wings: For their Legs are very long, and building thus, as they do, upon the Ground, they could neither draw their Legs conveniently into their Nests, nor sit down upon them otherwise than by resting their whole Bodies there, to the Prejudice of their Eggs or Young, were it not for this admirable Contrivance, which they have by natural Instinct. They never lay more than three Eggs, and seldom fewer. The young ones cannot fly till they are almost full grown; but will run prodigiously fast. Thus far *Dampier*.

Du Tertre, in his History of the Isles, &c. gives these further Circumstances. *Ces oyseaux, dit il, ont le ton de la voix si fort, qu'il n'y à personne, en les entendant, qui ne creust que ce sont des trompettes qui sonnent. Ils sont toujours en bandes, & pendant qu'ils ont la teste cachée, barbo-
rant dans l' eau comme les Cygnes, pour trouver leur mange-
aille, il y a toujours un en sentinelle tout de bout, le col éten-
du*

dù, l'oeil circonfpect, & la teste inquiète. Si tost qu'il aperçoit quelqu'un, il sonne la trompette, donne l'alarme au quartier, prend le vol tout le premier, & tous les autres le suivent. Ils volent en ordre comme les Grues; que si l'on les peut surprendre, ils sont si facile à tuer, que les moindres blessures les font demeurer sur la place. Ils sont rares & ne se voyent jamais, si non dans les salines le plus éloignées du Peuple.

On les écorche, & de leur peaux on fait de fourreurs, que l'on dit être très utile à ceux qui sont travaillez des froidesurs & débilité d'estomac.

(p) Rochfort likewise informs us, That Ils ont l'Ouye & l'Odorat si subtile, qu'ils eventent de loin les chasseurs, & les armes à feu. Pour éviter aussi tout surprise, ils se posent volontiers en des lieux découverts, & au milieu de marécages, d'où ils peuvent appercevoir de loin leurs ennemis; & il y en a toujours un de la bande qui fait le guet. Ils sont gras & ont la chaire assez delicate. On conserve leur peau qui est couverte d'un mol duvet, pour être employé aux mêmes usages que celles du Cygne & du Vautour.

De Laet observes, that these Birds are so accustomed to Salt Water, that the *Indians*, when they tame them, mix Salt with the fresh Water for them; else they pine away and die. And though *Aristophanes* says it is ὁ τῶν ἰνδιάνων, or not used to be tame; yet *Gassendus* writes, that *M. Varius*, President of the Parliament at *Aix* in *Provence*, and a great Friend of *M. Peiresc*, used to divert himself with feeding them with Bread moistned with Water, which they commonly eat in the Night and not in the Day Time. The same learned Person observed, that they could discern the Approach of cold Weather, and would come to the Fire, so as sometimes to burn their Feet; and that when one Foot pained them, they would go upon the other, using their Bill instead

of the burnt Foot ; That they slept standing upright on one Foot, with the other drawn up to their Breast among their Feathers: And lastly, that very little Sleep served their Turn.

Usus.

This beautiful and scarce Bird was much esteemed by the *Romans*, and frequently made use of in their costly Sacrifices and sumptuous Entertainments. Thus *Suetonius* (q) describing the exquisite Sacrifices which were appointed by the mad Emperor *Caligula* to be offered to himself as a Divinity, says of them, *Hostiæ erant Phœnicopteri, Pavones, Tetraones, Numidica, Meliagrides, Phasiana, quæ generatim per singulos dies immolarentur.* And the same Historian relates further (r), that this Emperor *pridiè quam periret sacrificans respersus est Phœnicopteri sanguine.*

That the Tongue of this Volatile was much commended, and in great Esteem, for its excellent Taste and most delicious Relish, will appear from the following Quotations. And first we read in *Pliny* (s), that *Apicius* said the Tongue of this Bird was a delicious and savory Bit, *Phœnicopteri linguam præcipui esse saporis Apicius docuit, nepotum omnium altissimus gurgis.*

The Poet *Martial* says the same thing in the aforecited Epigram :

*Dat mihi penna rubens nomen : sed lingua gulosis
Nestra sapit ;*

And *Juvenal* (t) in that Satyr where he exposes the extravagant Luxury and Gluttony of the *Romans*, men-

(q) *Suetonii Caligula*, §. 22. (r) *Scalig.* §. 57. (s) *Plinii Nat. Hist.* Lib. X. cap. 48. (t) *Juvenal. Sat.* XI.

tions this Fowl, amongst some others equally rare, that they made use of in their Feasts.

Et Scythica volucres & Phœnicopterus ingens.

We read in *Suetonius* how the Emperor *Vitellius* had them often served at his Table, with a great many more Varieties brought from the most distant Parts of the Universe; his Words are, (u) *In hac Scarorum jocinera, Phasianorum cerebella, linguas Phœnicopterum, Muranarum lactes à Carpathio usque fretoque Hispaniæ per Navarchos ac Triremes petitarum commiscuit; hoc est, ab extremis imperii sinibus Orientem versus & Occidentem.* And *Heliogabalus*, another of the Roman Emperors, as *Lampridius* writes, treated his Courtiers with sumptuous nice Dishes made of the Inwards and Brains of *Phœnicopters*, *exhibuit Palatinis ingentes dapes extis & cerebellis Phœnicopterorum refertas.*

What is related by *Gassendus*, in the Life of that learned Nobleman *Petreskius*, is no Argument against the excellent Relish of the Tongue of this Bird: For his Friend *Varius*, who therein seems to contradict the received Opinion, was at that Time just upon the Recovery from a long illness; he had no Appetite, loathed all Sorts of Meats, and mended but very slowly; so that its no Wonder if he did not perceive all the Relish of that nice Bit, for which of old it was so much commended. Besides, his Answer is not as to the Tongue, which was owned to be much sweeter than that of a Kid, but to the Flesh of this Bird, (as will appear from the Original.) *Rogatus subinde fuit de sapore carnis Phœnicopteri. Exceptit autem mirari se, cur illam Apicius apud Plinium, & Imperatores Caligula & Vitellius apud Suetonium, Heliogabalus apud Lampridium, & nonnulli alii tantis in deliciis habuissent. Esse enim eam injucundam, aut saporis certe non exquisiti, aquaticarum aliarum instar, cum etiam piscem oleat; unde à*

(u) *Suetonii Vitell. S. 13.*

Provincialibus ut plurimum abjicitur, exuvieque solum sunt usui in fastuosis conviviis, carnibus aliarum avium obtigendis.

The Way to dress the *Phænicopter*, and how to make a Sawce fit for it, we may read in *Apicius's* Book *de Obsoniis & Condimentis*, seu *de Arte coquinariâ*, Lib. VI. c. 7.

Phænicopterum elixas, lavas, ornas; includis in cacabum, adjicies aquam, salem & acetî modicum; dimidiâ cocturâ alligas fasciculum porri & coriandri ut coquatur: Prope cocturam defrutum mittis, coloras: adjicies in mortarium piper, cuminum, coriandrum, laseris radicem, mentham, rutam: fricabis: suffundis acetum: adjicies caryotam. Jus de suo sibi perfundis, reexinanes in eundem cacabum, amilo obligas, jus perfundis & inferes. Aliter. Assas avem, teres piper, ligusticum, apii semen, sesamum, defrutum, petroselinum, mentham, cepam siccam, caryotam; melle, vino, liquamine, acceto, oleo & defruto temperabis.

Philostratus Puniceam Avem, i. e. Phænicopterum, inter mensarum delicias numerat, Lib. VIII. Vitæ Apoll.

(x) *Wormius. Linguam hujus avis veteribus Romanis in deliciis olim fuisse docent cupediarum magistri Apicius & alii.*

Dr. Grew. The Tongue of this Bird, as Apicius said, was a delicious Morfel amongst the Romans.

N. B. In the Treatise de Obsoniis & Condimentis, that goes under the Name of Apicius, there's no mention made of the Tongue of this Fowl: For as Dr. Lister well observes, Apicius noster hîc filet de lingua præcipuo sapore: Which is a pretty convincing Proof, that this Book de re coquinaria, is only a Collection made by some modern Roman; the Name of the old Apicius, that great Master of the Art of Eating, being only prefixed to it, for the Benefit of the Bookseller.

Dampier. The Flesh of both young and old is lean and black, yet very good Meat, tasting neither fishy nor unsavory: A Dish of *Flamingo's* Tongues being fit for a Prince's Table. They are large, having a large Knob of Fat at the Root, which is an excellent Bit.

Du Tertre. La chair en est excellente, quoy qu'elle sent un peu la marine: mais sur tout la langue passe pour le plus friand morceau qui puisse etre mangé.

Descriptio Partium.

Magnitudo.

According to *Bellonius* this Bird is of the Bigness of the Fowl he calls *Elorius*, which is our *Curlier*.

Scaliger compares it to the *Heron*, *magnitudo ei Ardea*.

Gesner says it is as big as a *Ciconia* or *Stork*, or rather bigger.

Aldrovandus writes, *de magnitudine ejus ego nihil certi assero, quia Avem nunquam vidi*.

Dampier. The *Flamingo* is a sort of large Fowl much like the *Heron* in Shape, but bigger and of a reddish Colour.

Du Tertre. Le *Flamand* est un oiseau gros comme une Oye sauvage.

Collum.

It hath an extraordinary long Neck according to *Mr. Willoughby*.

Du Tertre. Il a le cou rouge, fort menu pour la grandeur de l'oiseau, & long d'une demy Toise.

Cauda.

Scaliger. *Caudam habet brevissimam ac veluti præcisam.*

Rostrum & Caput.

Scaliger writes, that the Bill of this Fowl is neither straight nor altogether crooked: *Röstrum neque rectum*

N n n n

plane

planè, sed neque aduncum habet, Scythici arcus partem potiùs imitatur.

Gesner, who compares this Bird to the Crane for Bigness, adds, *Rostrum sesquialtera fere longitudine ad Ciconiæ rostrum, superius crasso & tuberculis quibusdam aspero.*

Aldrovandus commends the Account Scaliger gives of the Bill, and then adds, *in Rostris autem conformatione non parum lusit Natura; non enim ut Anatim aut Anserim planum est, cum alioqui sit latum, neque ut Ardearum rectum & rotundum, neque denique ut rapacium Aquilarum aut Accipitrum aduncum; cum tamen sit curvum quidem & deorsum inflexum, sed in medio superioris mandibula notabili exuberantia insigne, sex digitos longum, intus cavum & canaliculatum media sui parte. Superior etiam mandibula inferiori longior est, & in acutissimam aciem desinit; contra vero inferior longe crassior.*

Du Tertre. Il a la teste ronde & petite, à laquelle est attaché un gros bec, long de quatre pouces, moitié rouge & moitié noire, & recourbé en forme de cueillière.

Olaus Wormius gives the following Description of the Head and Bill of the *Phænicopter*, which he had sent him from a Friend, viz.

Caput longitudine uncias octo superabat, ipsum caput, excepto rostro, trium erat. Rostrum ipsum figuram à Scaligero delineatam obtinet, in medio crassum satis sed cavum, superiore ejus parte utrinque ad latera canaliculatum; ad sui exitum duobus grandibus foraminibus olfactui deputatis præditum, in extremitate aduncum, interne denticulatum cum costâ seu eminentiâ in medio. Pars vero inferior nigra, frequentibus prædita striis ad extremum excurrentibus; longitudine vero cedit superiori, sed ampla est & capax, crassæ lingue, quæ aberat, excipienda apta.

Dr. Grew has obliged us with a very curious Account of the Bill of this Bird, for which he says it is most
remark-

remarkable. The Figure of each Beak is truly Hyperbolic: The upper Jaw is ridged behind, before plain or flat, and pointed like a Sword, with the Extremity bended a little downwards: Within it hath an Angle or sharp Ridge, which runs all along the Middle, at the Top of the Hyperbole, not above a quarter of an Inch high: The lower Beak in the same Place above one Inch high, hollow, and the Margins strangely expanded inward, for the Breadth of above a quarter of an Inch, and somewhat convexly. They are both furnished with black Teeth, as I call them from their Use, of an unusual Figure, *scil.* slender, numerous, and parallel as in Ivory Combs; but also very short, scarce the eighth Part of an Inch deep. An admirable Invention of Nature, by the Help of which and of the sharp Ridge above-mentioned, this Bird holds his slippery Prey the faster.

Mr. Ray describes the *Rostrum* to be *latiusculum, singularis & insolita figura; mandibula nempe superior incurva, depressa, dentata; inferior crassior.*

Menippus, the Cynick Philosopher, in a Fragment of his *de Homine* (which however at this Time is either lost, or at least hard to be come at) affirms this Bird to move its upper Jaw, as we find him quoted by (y) *Rondeletius*, where he is talking of the Crocodile's moving that Mandible: His Words are, *sed id non soli ex omnibus animalibus Crocodilo peculiare, nam intra Aves, Phœnicopterus superiorem partem Rostris movet, ut annotavit Menippus Philosophus, Libro de Homine.*

Gesner makes the very same Quotation from *Rondeletius*.

(z) *Cardanus* repeats the same thing without Mention of any Author, *nam quidam existimant etiam Phœni-*

(y) *Rondel. Lib. de Amphibiis, Chap. 5.*

(z) *Cardan. de Varietate Rerum, Lib. 7. Cap. 37.*

copteros aves Mandibulam movere superiorem; but subjoins, sed non adeo manifesta causa est in Ave ut in Crocodilo.

Wormius is of the same Opinion; but with *Cardan*, he thinks the Cause is not so manifest as in the Crocodile.

Dr. Charleton says, that it was *Cardanus* that first made that Observation.

Dr. Grew argues for this Movement from the peculiar Structure of the *Rostrum*; alledging, however, that there can be no Determination of these Matters, without Inspection into the Muscles, and the Articulation of the Bones. As for the *Phœnicopter*, says he, it must needs be said, that the Shape and Bigness of the upper Beak (which here, contrary to what it is in all other Birds that I have seen, is thinner and far less than the neither) speaks it to be the more fit for Motion, or to make the Appulse, and the neither to receive it.

Crura & Pedes.

Bellonius remarks, that the Legs of this Volatile are very long. And on the contrary,

* *Scaliger* writes, *Crura pedesque sunt adeo breves, ut cum in Homine Galenus agnoverit longissimos, huic omnium, quæ nota sunt nobis, animalium brevissimos attribuere potuerit.* For this he is severely taxed by *Dr. Charlton*, *hic nobis candidè notandus occurrit error quidam Scaligeri egregius: Is nimirum in Exercit. in Arist. Hist. Animal.* (this is wrong quoted, the Place being in *Arist. Lib. de Generat. Anim.*) *peculiares Phœnicopteri notas satis prolixè describens, crura ei brevissima curtosque pedes attribuit, (verbis supra citatis) atque Avem hanc & cruribus & suris gradiri longissimis, omnium quotquot seu vivam seu mortuam contemplati sunt oculi confirmant. Et quis precor, ullam aliam, ex Aquaticarum fissipedum & piscivorarum classe, volacrem unquam conspexi brevibus pedibus in-*

* *Scalig. Exercit. 233. § 2. de Subilitate, ad Cardanum.*

structam? Certè nemo. Neque consentaneum est, ut quas Naturæ consilium ad pisces in stagnis & fluviorum vadis, non natando sed gallatoriis veluti gradibus vadando, captandos destinaverit, eis crura concederentur tam necessario ad victum querendum officio imparia. Ad hæc, non aliunde fuit quàm à proceritate crurum & colli, quod Phœnicopterus olim à Juvenale ingens diceretur.

Dr. Grew observes the same Mistake, but in fewer Words, which are the following; *when Scaliger therefore saith that this Bird hath the shortest Legs of any Animal yet known, he would have said the longest.*

Gesner says, it is *Cruribus rubris, ea proceritate qua in Ciconia sunt, vel procerioribus.*

Du Tertre. *C'est le plus haut monté de tous les oyseaux que Jay jamais veu en ma vie. Il a les Jambes tout rouges, & les pieds a demi marin.*

(y) Rochfort. *Ils ont les jambes & les cuisses si hautes, que le reste de leur corps est élevé de terre de deux bons pieds ou environ.*

Color Plumarum.

Scaliger thus elegantly expresses the fine Colour of its Wings *Cinereum colorem nobilitant alarum punicea penne.*

Aldrovandus. *Mirum est cur nigrum alarum colorem non annotavit Scaliger. Cætera tota Avis ex cinereo, phœniceo & albo coloribus mistis spectatur.*

Gesner says, *Pennis albis parte prona; rubentibus per Collum, Pectus, Ventrem & Alas.* And speaking of one taken near Montpellier, he says, *tota alba, præter illas in alis partes que nigre sunt in Ciconiis.*

(z) De Laet observes, that while they are young their Feathers are chiefly white; but as they grow up, they are painted with an Infinity of Colours. *Mais ils different en couleur, d'autant qu'ils ont le plumage blanc quand ils*

(y) *Hist. des Antilles* Edit. Rottord. p. 583.

(z) *Hist. du Nouveau Monde, Lib. 1. Cap. 9. & Lib. 18. Cap. 15.*

sont jeunes ; puis apres à mesure qu'ils croissent, ils devient de couleur de rose, & en fin quand ils sont agez, il est tout incarnat. Il se trouve de ce mêmes oiseaux, pres de Montpellier, qui ont seulement le dessous des ailes & du corps incarnat, & le dessus noir. Il s'en voit aussi aux Isles, qui ont les ailes mêlées de quelques plumes blanches & noires.

Du Tertre gives much the same account. Les Jeunes sont beaucoup plus blancs que les vieux, & ils rongissent à mesure qu'ils avancent en age. J'en ay veu aussi quelquesuns qui avoient les ailes meslées de plumes rouges, noires & blanches, & je croy que ce sont les mâles.

(†) Constantinus, *Rostrum, & crura, & pars alarum, puniceo colore rutilat.*

Willoughby says, the Neck and Body is white: The *Alarum Remiges*, or Quill-Feathers of the Wings, are black; but the *Vestirices*, or Covert-Feathers, are wholly dyed with a most beautiful, bright purple, or flame Colour, *unde ei nomen.*

Dampier. The young ones at first are of a light grey; and as their Wing-Feathers spring out, they grow darker, and never come to their right Colour, or any beautiful Shape, under ten or eleven Months old. When many of them are standing together by a Pond's Side, being half a Mile distant from a man, they appear to him like a Brick Wall; their Feathers being of the Colour of a new red Brick: And they commonly stand upright and single, one by one exactly in a Row, except when feeding, and close by each other.

Color Pedum.

All Authors agree in the red Colour of its Legs and Feet. Thus Scaliger, *Crura pedesque alis habet colores.*

(†) Constant. *Lexicon Græc.-Latin.*

Color Rosæri.

Gesner says, *Colore rubro instar sanguinis.*

Aldrovandus writes, *Pars quæ spectat frontem ex albo ad Castanea colorem vergit, cætero nigrum.*

Willoughby affirms, that the Tip of the Bill is black, or of a dark blue.

Figure.

The whole Fowl is delineated by Gesner and Aldrovandus; and Dr. Grew has given us the Figure of the Head and Bill, as he found it amongst the Rarities in Gresham-College. N. B. The Figure of the *Phænicopter* in Willoughby, is copied from the second of Aldrovandus. Gesner says the *Phænicopterus* whence his Figure was taken, was sent to him by Rondeletius. Aldrovandus had the first of his Figures from *Sardinia*; and the second, which he calls *Phænicopterus alter rostro lato*, was given him by that famous Botanist *Carolus Clusius*: He owns that he never saw the Bird himself.

In *de Rochfort*, the Body and Neck of the *Flammant* is pretty well delineated; but the Legs are not, neither is the Bill, nor the Claws.

(*) *Du Hamel* gives a very exact Account of this Bird in the following Words, with which I'll close this tedious and prolix Description, collected from all the Authors that have made any mention of the *Phænicopter* or *Red-Wing*. *Collo prælongo, cruribus productis, exili pede sed firmo donatur; oculi itidem angustissimi sunt & rubei; cystis fellea à parte inferiore hepatis est pensilis. Vas ipsum è quo suspenditur, quovè bilem excipit, amplum est, contra atque in Homine & in Quadrupedibus observatur; in his*

(*) *Hist. Acad. Royale Edit. Paris, p. 213.*

enim radices vesiculae sunt admodum exiles. Oesophagus in sui initio valde angustus, paulatim latior factus in ingluviem seu in saccum ampliorem definit: Ventriculus fere ut in Gallina, tametsi Granis non vescitur, sed parvis Conchyliis, quae ventriculi musculis teruntur ut Grana. This Author tells us that the *Phœnicopter* was dissected by Monsieur Perrault at Paris.

Ale ejus didactyle colorem illum rutilum exhibent, unde vulgo Flamand dici solet, non quod in Belgio reperiatur, sed quia ejus Plumae per membranam pellucidam visae colorem flammæ præbent: Vix ulla est Avis maior: Rostrum ex utraque parte deorsum incurvatum, quod in ea Ave omnino est singulare; aratri enim instar inflectitur, unde & vulgo Becharü, quasi Aratrirostrum, appellatur. Hæc ille.

When I get the Opportunity, which I do very much long for, of dissecting this fine Volatile with my own Hand, I shall then more particularly insist on the Anatomical Part; and, with all the Exactness I can, give a true Description of each *Viscus*. I proceed to the Explanation of the Figures, which were drawn from a *Flamingo* that was sent to Mr. Botley to be stuffed.

The Explanation of the Figures. Tab. II.

Fig. I. Gives a Side-view of the Head and Bill.

Fig. II. In this is represented a Front-view of the same Parts.

Fig. III. Exhibits the under-side of the Tongue next the under Bill. In which *a* denotes a Cartilaginous Substance that covers the Tip or extremity of the Tongue; *b* a Glandulous Substance at its Basis; *c* the Horns of the *Os Hyoides*.

Fig. IV. In this the upper side of the Tongue is fairly delineated, upon which we see two Rows of strong *Papillæ Nervæ*; their *Apices* or Points turning inwards, for the better retention of the Prey.

Fig. V.

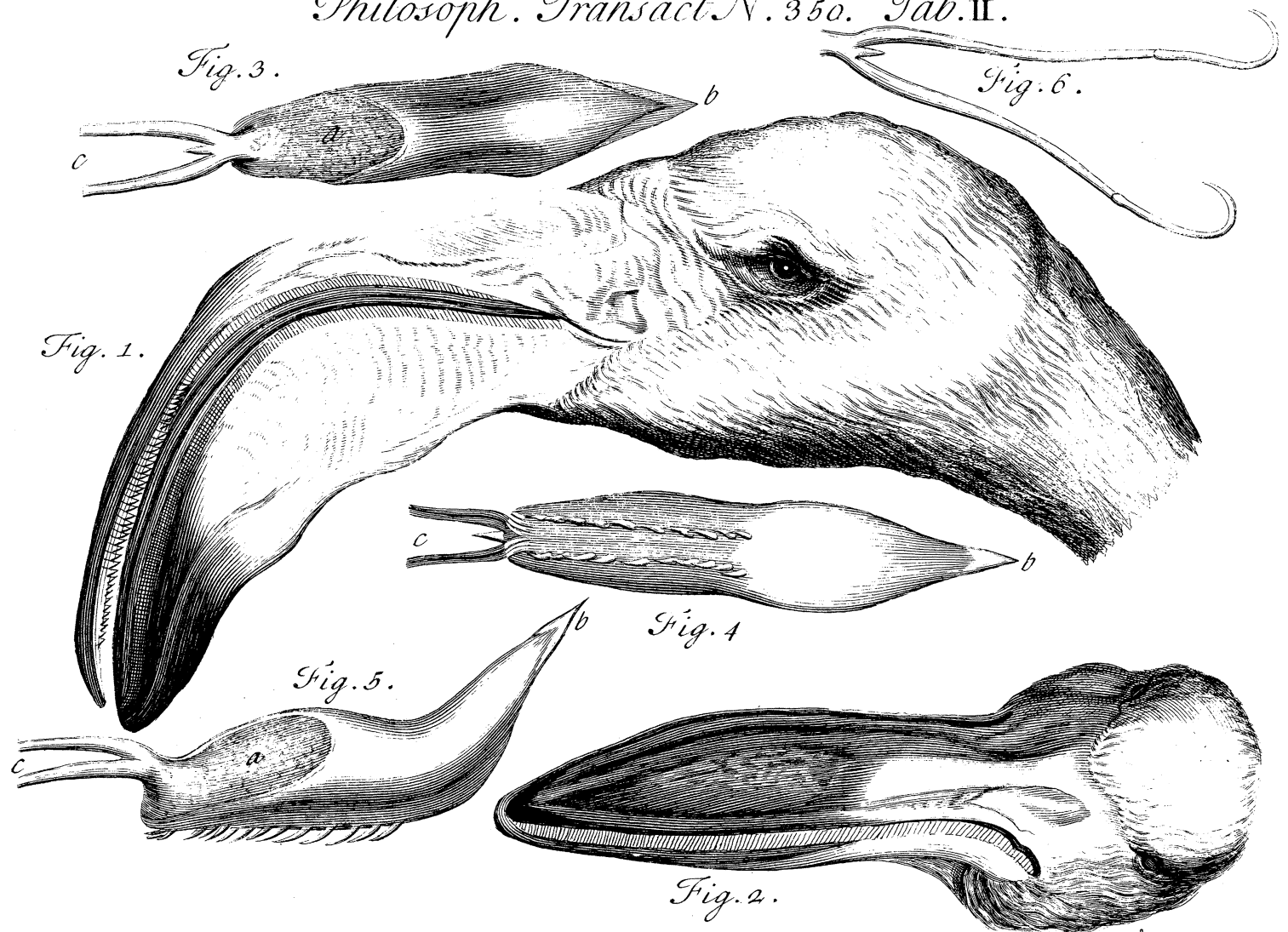


Fig. V. In this the Tongue is drawn in a lateral View, that we may have a Prospect of the true Figure of these *Fapilla*, which being hooked and turn'd backwards prevent, in a great Measure, the return of any little Animal swallow'd alive, which they feed upon.

Fig. VI. The *Cornua* or Horns of the *Os Hyoideum* are drawn in this last Figure, as all the other Parts are, as big as the Life.

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WHEREAS some of our practising Surgeons, as I am inform'd, have taken Offence at a Passage in a Paper of mine, publish'd in the last *Philosophical Transactions*, viz. By that sort of Enquiry the common Mistake of Surgeons was detected, and what was esteem'd and treated by them as a Luxation of the Head of the *Os femoris*, was discover'd to be nothing else but a fracture of the same Bone near it's Neck; I take this first Opportunity to explain my self, that by the preceding Words I only meant the Writers of Surgery now extant, as may appear by my Quotations, and not in the least intended any Reflection on the present Practitioners in it. That skilful Society I not only Respect and Esteem for their great Merit and extensive Knowledge in the several Parts of their Profession, but to them am under many Obligations also, for the Honour they have done me in twice choosing me one of their Lecturers. I have this farther to add, that that Observation was publish'd entirely without my Knowledge about a Year after it had been read at a Meeting of the Royal Society.

James Douglas.